EPA WASTEWATER MANAGEMENT AUTHORITY

- POINT SOURCE DISCHARGES TO SURFACE WATERS
  - delegated versus non-delegated states
- APPROVAL OF STATE STANDARDS
- APPROVAL OF TMDLs

CENTRALIZED WASTEWATER TREATMENT FACILITY ISSUES

- Facilities were often sized and cited without consideration of the assimilative capacity of the receiving water.

	Design Flow (MGD)	7Q10 Flow (MGD)
• UBWPAD	56.0	6.2
• Westborough	7.68	0.0
• Milford	4.3	0.1
• Brockton	18.0	0.4
• Marlborough East	5.1	0.1
• Attleboroughs	13.1	3.6
• Gardner	5.0	1.9

CENTRALIZED WASTEWATER ISSUES Cont.

- Flow expansions are often approved with only a modest seasonal improvement in treatment efficiency.
- Many watersheds are already dominated by municipal wastewater effluent under low flow conditions.

	Permitted (MGD)	7Q10 (MGD)
• Blackstone River	64.5	65.0
• SUASCO River	27.4	22.4
• Upper Charles	12.5	9.2
• Taunton River	30.0	15.9
• Nashua River	27.2	29.3
• Ten Mile River	13.1	6.8
• French River	6.8	7.6

CENTRALIZED WASTEWATER ISSUES Cont.

- Facilities often sized and cited with little regard to impacts on groundwater levels and stream flows.
  - In many water bodies, significant quantities of water are withdrawn form tributary watersheds and bypassed to the main stem through the wastewater treatment facility.
  - In other water bodies, significant quantities of withdrawals are discharged entirely out of the basin.

CENTRALIZED WASTEWATER IMPACTS

- After an enormous investment in wastewater treatment, we still have not attained CWA goals in many water bodies.
  - Many water bodies are chemically overloaded with nutrients and other contaminants.
  - Some impacts are obvious, e.g., nutrients:

CENTRALIZED WASTEWATER IMPACTS Cont.

Impounded section of the SUASCO River

Grist Mill Pond

CENTRALIZED WASTEWATER IMPACTS Cont.

- Other impacts are not so obvious.
  - Alteration of the natural temperature of the receiving water.
  - Introduction of significant quantities of emerging contaminants (PPCPs) that can cause endocrine disruption in aquatic life.

CENTRALIZED WASTEWATER IMPACTS Cont.

- Wastewater treatment facilities play a significant role in altering the hydrologic balance within many watersheds.
  - Many tributaries and some main stem rivers lack sufficient flow to support native fish communities.
  - Even if we could address the water chemistry issues, through costly levels of treatment, many watersheds may still not function as a healthy ecosystem due to hydrologic stress.

WHAT IS EPA DOING

- Regulating flow increases.
- Incorporating improved requirements in permits related to I/I control with an emphasis on stressed basins.
- Requiring that infiltration be a focus in storm water management programs required by federal permits.
- Working with states on incorporating improved Standards language relative to protecting stream flows.

COST ISSUES

- Decentralized wastewater alternatives that minimize hydrologic imbalances within a watershed will be more expensive.

- However, you need to consider the long term cost and growth impacts of depleted groundwater levels and the cost of losing the uses associated with the communities aquatic resources.

FUNDING and ASSISTANCE

- More than 30 million spent nationally to improve on-site system performance, explore new technologies, and assist communities in establishing inspection and maintenance programs.
- SRF funds can be used for conservation and reuse as well as decentralized systems.
- 319 grants to states.
- USDA Rural Utilities Service Program – water and waste disposal grants for communities <10,000.
- HUD – community development grants administered by states.
- Smart Growth web site - www.epa.gov/smartgrowth